

**From:** [Miller, Garyg](#)  
**To:** [Foster, Anne](#)  
**Cc:** [Sanchez, Carlos](#); [Turner, Philip](#)  
**Subject:** RE: Just a few more SJ questions...  
**Date:** Thursday, February 04, 2016 4:01:27 PM

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Let's discuss this tomorrow if your available?

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**From:** Foster, Anne  
**Sent:** Thursday, February 04, 2016 2:54 PM  
**To:** Miller, Garyg  
**Cc:** Sanchez, Carlos; Turner, Philip  
**Subject:** RE: Just a few more SJ questions...

I only see two sediment samples downstream of the site (not including those to the west of the southern impoundment) – am I misreading the sample map? How did the PRPs pick these locations? Did they do some kind of analysis of how sediment moves in the river so they could find the spots where it was most likely to accumulate downstream of the site?

Thanks for your help.

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**From:** Miller, Garyg  
**Sent:** Thursday, February 04, 2016 2:39 PM  
**To:** Foster, Anne  
**Cc:** Sanchez, Carlos; Turner, Philip  
**Subject:** RE: Just a few more SJ questions...

Anne,

Your summary is good. The assessment of whether the dioxin came for the waste pits or other background sources was based on the PRPs' "unmixing analysis" in the RI Report, which developed percentages of dioxin source for the sediment samples. The results are in the attached figure from the RI report – the unmixing map figure. The paper mill waste (high in TCDD & TCDF) is shown by the gold pie slice & the other dioxin background source is shown by the blue pie slice. The next two attached figures show the differences between the paper mill & background dioxin sources.

The unmixing map shows the paper mill waste material in the waste pits, at the sand separation area on the River Fleet property (also in between pits & sand separation area), and south of the southern impoundment. However, the samples south of the I-10 bridge were low – highest one was 74.6 ppt in the Old River just south of the southern impoundment, and further downriver they were very low



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(3.87 ppt) . So, no high levels south of the site even though some paper mill waste made it there. The "EM2" material is the paper mill waste, and the "EM1" is the background dioxin material.

Phil Turner & Linda Broach got similar results in their fingerprint study. Attached after the sample maps above are their fingerprint results for upstream, in the pits, and just outside of the pits.

On the number of samples, there were over 300 site & background sediment samples (surface & cores) - there was a good sample coverage of the area.

Phil – please comment if you wish.

And Anne, let me know if you have any more questions.

Regards,

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**From:** Foster, Anne  
**Sent:** Thursday, February 04, 2016 1:12 PM  
**To:** Miller, Gary  
**Subject:** Just a few more SJ questions...

And then I'll stop.

As dioxin is hydrophobic (IP likes this word), I was skimming the RI (tough to skim, by the way) for dioxin sediment sampling results (extremely difficult to decipher in the RI text – seems to be written in a deliberately convoluted way). The RI appears to conclude that dioxin from the site is only found in sediments within the 1966 perimeter (RI term), except for a limited area north of the sand separation between the northern pits, and just off the southern tip of the peninsula with the southern pits. Am I reading this right? Did we find site-related dioxin in sediments further downriver? How much sediment sampling did they do?

I know you're busy, but I'd appreciate your thoughts when you get a chance. Thanks.